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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/738,479	12/17/2003	Jari Almi	033047/272486	8207

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ALSTON & BIRD LLP
BANK OF AMERICA PLAZA
101 SOUTH TRYON STREET, SUITE 4000
CHARLOTTE, NC 28280-4000

EXAMINER

RINEHART, KENNETH

ART UNIT	PAPER NUMBER
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3749

DATE MAILED: 08/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/738,479

Applicant(s)

ALMI ET AL.

Examiner

Kenneth B Rinehart

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/9/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 3, and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 2 and 3, the phrase "slot-like or hole-like or plane like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "or the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-4, 9-12, 16, 23, 26, and 27 are rejected under 35 U.S.C. 102(a) as being anticipated by Pellinen. Pellinen shows A method of blowing drying gas against a paper web, in which method drying gas is blown with an impingement dryer comprising a plurality of profiling chambers in the cross-direction of a paper machine (fig. 1), the cross-profile of the paper web being controlled by means of the drying gas blown from the profiling chambers, each profiling chamber blowing drying gas to its own effective area (col. 1, lines 1-10); the impingement dryer further comprising a chamber and return air ducts in such a way that drying gas blown against the paper web from the profiling

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chambers is returned into the return air chamber through the return air ducts (col. 3, lines 7-10), the method comprising returning drying gas blown against the paper web into the return air chamber through the return air ducts without the drying gas affecting the effective area of the adjacent profiling chamber (col. 3, lines 35-38)), drying gas is returned into the return air chamber through slot-like return air ducts arranged between the profiling chambers (fig. 1, col. 6, lines 12-20), the amount of drying gas blown from the profiling chamber is adjusted with a control unit arranged in connection with the profiling chamber (4, fig. 2), the drying gas is superheated steam (col. 4, line 10), a plurality of profiling chambers in the cross-direction of the paper machine (fig. 1), the profiling chambers being arranged to control the cross-profile of a paper web in such a way that each profiling chamber is arranged to blow drying gas against the paper web to its own effective area (col. 1, lines 1-10). and the impingement dryer further comprising a return air chamber and return air ducts in such a way that drying gas blown against the paper web is arranged to be returned into the return air chamber through the return air ducts , and that the return air ducts are arranged between the profiling chambers in such a way that drying gas blown against the paper web from the profiling chambers is arranged to be returned into the return air chamber through the return air ducts and that the return air ducts are configured to prevent the drying gas essentially affecting the effective area of the adjacent profiling chamber (col. 3, lines 35-38, col. 6, lines 13-20), the drying gas is air (col. 3, line 16), the impingement dryer is a plane like impingement dryer (col. 7, line 5)

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1, 2, 4, 5, 7-9, 11, 12, 16, 17, 19-26 is rejected under 35 U.S.C. 102(b) as being anticipated by WO99/51813. WO99/51813 shows A method of blowing drying gas against a paper web, in which method drying gas is blown with an impingement dryer comprising a plurality of profiling chambers in the cross-direction of a paper machine (page 7, lines 26-29), the cross-profile of the paper web being controlled by means of the drying gas blown from the profiling chambers, each profiling chamber blowing drying gas to its own effective area (page 7, lines 30-35); the impingement dryer further comprising a chamber and return air ducts in such a way that drying gas blown against the paper web from the profiling chambers is returned into the return air chamber through the return air ducts, the method comprising returning drying gas blown against the paper web into the return air chamber through the return air ducts without the drying gas affecting the effective area of the adjacent profiling chamber (page 8, lines 4-6, page 7, lines 34-35), drying gas is returned into the return air chamber through slot-like return air ducts arranged between the profiling chambers (col. 8, lines 4-6), the amount of drying gas blown from the profiling chamber is adjusted with a control unit arranged in connection with the profiling chamber (page 18, lines 6-14), the control unit comprises a damper and an actuator that moves it (page 18, lines 26-29), the temperature of the drying gas is arranged between 200 C and 600 C (page 9, lines 31-33), the blowing rate of the drying gas is arranged between 50 and 150 m/s (page 9, lines 34-35, page 10, lines 1-3), the drying gas is air (page 7, lines 30-31), a plurality of profiling chambers in the cross-direction of the paper machine (page 7, lines 26-29), the profiling chambers being arranged to control the cross-profile of a paper web in such a way that each profiling chamber is arranged to blow drying gas against the paper web to its own effective area

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(page 7, lines 30-35). and the impingement dryer further comprising a return air chamber and return air ducts in such a way that drying gas blown against the paper web is arranged to be returned into the return air chamber through the return air ducts , and that the return air ducts are arranged between the profiling chambers in such a way that drying gas blown against the paper web from the profiling chambers is arranged to be returned into the return air chamber through the return air ducts and that the return air ducts are configured to prevent the drying gas essentially affecting the effective area of the adjacent profiling chamber (page 8, lines 4-6, page 7, lines 34-35), the return air duct is a slot between the profiling chambers (page. 8, lines 4-6), a control unit in connection with the profiling chamber in order to adjust the amount of drying gas to be supplied to the profiling chamber (page 18, lines 6-14), the control unit comprises a damper and an actuator that moves it (page 18, lines 26-29), An impingement dryer is arranged in connection with a vacuum roll in the dryer section of the paper machine (10, fig. 1), the impingement dryer is arranged below the vacuum roll (fig. 1), the impingement dryer is arranged below the vacuum roll in the basement of the paper machine (page 6, line 4), the impingement dryer is arranged in connection with a vacuum roll of a larger size than an ordinary vacuum roll of the paper machine (fig. 1, page 5, lines 1-3), wherein the impingement dryer is a plane-like impingement dryer (fig. 1).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3, 6, 10, 13-15, 18, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO99/51813. WO99/51813 discloses A method of blowing drying gas against a paper web, in which method drying gas is blown with an impingement dryer comprising a plurality of profiling chambers in the cross-direction of a paper machine (page 7, lines 26-29), the cross-profile of the paper web being controlled by means of the drying gas blown from the profiling chambers, each profiling chamber blowing drying gas to its own effective area (page 7, lines 30-35); the impingement dryer further comprising a chamber and return air ducts in such a way that drying gas blown against the paper web from the profiling chambers is returned into the return air chamber through the return air ducts, the method comprising returning drying gas blown against the paper web into the return air chamber through the return air ducts without the drying gas affecting the effective area of the adjacent profiling chamber (page 8, lines 4-6, page 7, lines 34-35), the control unit comprises a damper and an actuator that moves it (page 18, lines 26-29), the amount of drying gas blown from the profiling chamber is adjusted with a control unit arranged in connection with the profiling chamber (page 18, lines 6-14), a plurality of profiling chambers in the cross-direction of the paper machine (page 7, lines 26-29), the profiling chambers being arranged to control the cross-profile of a paper web in such a way that each profiling chamber is arranged to blow drying gas against the paper web to its own effective area (page 7, lines 30-35), and the impingement dryer further comprising a return air chamber and return air ducts in such a way that drying gas blown against the paper web is arranged to be returned into the return air chamber through the return air ducts , and that the return air ducts are arranged between the

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profiling chambers in such a way that drying gas blown against the paper web from the profiling chambers is arranged to be returned into the return air chamber through the return air ducts and that the return air ducts are configured to prevent the drying gas essentially affecting the effective area of the adjacent profiling chamber (page 8, lines 4-6, page 7, lines 34-35). WO99/51813 discloses applicant's invention substantially as claimed with the exception of the actuator is a spindle motor, the drying gas is superheated steam, drying gas is returned into the return air chamber through hole-like return air ducts arranged between, the return air duct is a hole between the profiling chambers, the width of the profiling chamber is 30 to 70 mm, the width of the return air duct is 5 to 10 mm. At the time the invention was made it would have been an obvious matter of design choice to a person of ordinary skill in the art to have the actuator is a spindle motor, the drying gas is superheated steam because applicant has not disclosed that type of automatic actuator or drying gas provides an advantage, is used for a particular purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either the actuator and drying gas of WO99/51813 or the claimed actuator and gas because both actuators perform the same function providing a motive force or drying equally well. At the time the invention was made it would have been an obvious matter of design choice to a person of ordinary skill in the art to have drying gas is returned into the return air chamber through hole-like return air ducts arranged between between the profiling chambers, the return air duct is a hole between the profiling chambers because applicant has not disclosed that the shape of the orifice provides an advantage, is used for a particular purpose or solves a stated problem. One of ordinary skill in the art,

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furthermore, would have expected Applicant's invention to perform equally well with either the shape of WO99/51813 or the claimed shape because both shapes perform the same function of a return portal equally well. At the time the invention was made it would have been an obvious matter of design choice to a person of ordinary skill in the art to the width of the profiling chamber is 30 to 70 mm, the width of the return air duct is 5 to 10 mm because applicant has not disclosed that the size of the duct or chamber provides an advantage, is used for a particular purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either the size of WO99/51813 or the claimed size because both sizes perform the same function of a drying equally well.

Claims 5, 6, 7, 8, 13-15, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pellinen. Pellinen discloses A method of blowing drying gas against a paper web, in which method drying gas is blown with an impingement dryer comprising a plurality of profiling chambers in the cross-direction of a paper machine (fig. 1), the cross-profile of the paper web being controlled by means of the drying gas blown from the profiling chambers, each profiling chamber blowing drying gas to its own effective area (col. 1, lines 1-10); the impingement dryer further comprising a chamber and return air ducts in such a way that drying gas blown against the paper web from the profiling chambers is returned into the return air chamber through the return air ducts (col. 3, lines 7-10), the method comprising returning drying gas blown against the paper web into the return air chamber through the return air ducts without the drying gas affecting the effective area of the adjacent profiling chamber (col. 3, lines 35-38)), drying gas is

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returned into the return air chamber through slot-like return air ducts arranged between the profiling chambers (fig. 1, col. 6, lines 12-20), the amount of drying gas blown from the profiling chamber is adjusted with a control unit arranged in connection with the profiling chamber (4, fig. 2), the drying gas is superheated steam (col. 4, line 10), a plurality of profiling chambers in the cross-direction of the paper machine (fig. 1), the profiling chambers being arranged to control the cross-profile of a paper web in such a way that each profiling chamber is arranged to blow drying gas against the paper web to its own effective area (col. 1, lines 1-10). and the impingement dryer further comprising a return air chamber and return air ducts in such a way that drying gas blown against the paper web is arranged to be returned into the return air chamber through the return air ducts , and that the return air ducts are arranged between the profiling chambers in such a way that drying gas blown against the paper web from the profiling chambers is arranged to be returned into the return air chamber through the return air ducts and that the return air ducts are configured to prevent the drying gas essentially affecting the effective area of the adjacent profiling chamber (col. 3, lines 35-38, col. 6, lines 13-20), the drying gas is air (col. 3, line 16), the impingement dryer is a plane like impingement dryer (col. 7, line 5). Pellinen discloses applicant's invention substantially as claimed with the exception of the control unit comprises a damper and an actuator that moves it, the actuator is a spindle motor, the temperature of the drying gas is between 200 and 600 C , the blowing rate of the drying gas is between 50 and 150 m/s, drying gas is returned into the return air chamber through hole-like return air ducts arranged between, the return air duct is a hole between the profiling chambers, the width of the profiling chamber is 30 to 70 mm, the width of the return air duct is 5 to 10 mm. At the time the invention was made

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it would have been an obvious matter of design choice to a person of ordinary skill in the art to have the control unit comprises a damper and an actuator that moves it, the actuator is a spindle motor because applicant has not disclosed that type of automatic actuator provides an advantage, is used for a particular purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either the valve of Pellinen or the claimed actuator because both actuators perform the same function of providing a motive force or drying equally well. At the time the invention was made it would have been an obvious matter of design choice to a person of ordinary skill in the art to have drying gas is returned into the return air chamber through hole-like return air ducts arranged between between the profiling chambers, the return air duct is a hole between the profiling chambers because applicant has not disclosed that the shape of the orifice provides an advantage, is used for a particular purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either the shape of Pellinen or the claimed shape because both shapes perform the same function of a return portal equally well. At the time the invention was made it would have been an obvious matter of design choice to a person of ordinary skill in the art to have the width of the profiling chamber is 30 to 70 mm, the width of the return air duct is 5 to 10 mm because applicant has not disclosed that the size of the duct or chamber provides an advantage, is used for a particular purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either the size of Pellinen or the claimed size because both sizes perform the same function of a drying equally well.

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Claims 5, 6, 7, 8, 13-15, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pellinen in view of Wells. Pellinen discloses A method of blowing drying gas against a paper web, in which method drying gas is blown with an impingement dryer comprising a plurality of profiling chambers in the cross-direction of a paper machine (fig. 1), the cross-profile of the paper web being controlled by means of the drying gas blown from the profiling chambers, each profiling chamber blowing drying gas to its own effective area (col. 1, lines 1-10); the impingement dryer further comprising a chamber and return air ducts in such a way that drying gas blown against the paper web from the profiling chambers is returned into the return air chamber through the return air ducts (col. 3, lines 7-10), the method comprising returning drying gas blown against the paper web into the return air chamber through the return air ducts without the drying gas affecting the effective area of the adjacent profiling chamber (col. 3, lines 35-38)), drying gas is returned into the return air chamber through slot-like return air ducts arranged between the profiling chambers (fig. 1, col. 6, lines 12-20), the amount of drying gas blown from the profiling chamber is adjusted with a control unit arranged in connection with the profiling chamber (4, fig. 2), the drying gas is superheated steam (col. 4, line 10), a plurality of profiling chambers in the cross-direction of the paper machine (fig. 1), the profiling chambers being arranged to control the cross-profile of a paper web in such a way that each profiling chamber is arranged to blow drying gas against the paper web to its own effective area (col. 1, lines 1-10). and the impingement dryer further comprising a return air chamber and return air ducts in such a way that drying gas blown against the paper web is arranged to be returned into the return air chamber through the return air ducts , and that the return air ducts are arranged between

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the profiling chambers in such a way that drying gas blown against the paper web from the profiling chambers is arranged to be returned into the return air chamber through the return air ducts and that the return air ducts are configured to prevent the drying gas essentially affecting the effective area of the adjacent profiling chamber (col. 3, lines 35-38, col. 6, lines 13-20), the drying gas is air (col. 3, line 16), the impingement dryer is a plane like impingement dryer (col. 7, line 5). Pellinen discloses applicant's invention substantially as claimed with the exception of the control unit comprises a damper and an actuator that moves it, the actuator is a spindle motor. Wells teaches the control unit comprises a damper and an actuator that moves it, the actuator is a spindle motor (abstract, col. 5, lines 65-67) for the purpose of reducing the complexity and unreliability of the system as well as provide for remote control. It would have been obvious to one of ordinary skill in the art to modify Pellinen by including the control unit comprises a damper and an actuator that moves it, the actuator is a spindle motor as taught by Wells for the purpose of reducing the complexity and unreliability of the system as well as provide for remote control for the purpose of reducing manufacturing costs.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of the art with respect to boxes in general: Daane (3089252), Muller et al (5752324).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth B Rinehart whose telephone number is 703-308-1722. The examiner can normally be reached on 7:30 -4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ira Lazarus can be reached on 703-308-1935. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KBR


KENNETH RINEHART
PRIMARY EXAMINER